

**WHAT IS CLAIMED IS:**

1. A moldable composite material, comprising:  
a batting layer of nonwoven batting material, the nonwoven batting  
5 material including low melt temperature fibers and high melt  
temperature fibers;  
a cushion layer of nonwoven cushion material having a first side  
disposed adjacent to said batting layer and a second side  
disposed opposite to said batting layer, the nonwoven cushion  
10 material including cushion fibers;  
a face textile disposed adjacent to the second side of said cushion  
layer;  
an adhesive adhering said face textile to said cushion layer;  
wherein at least a portion of the cushion fibers in said cushion layer  
15 interlace with the nonwoven batting material of said batting  
layer.
2. The moldable composite material according to claim 1, wherein the low  
melt temperature fibers and the high melt temperature fibers of the nonwoven  
20 batting material, the cushion fibers of the nonwoven cushion material, the face  
textile, and the adhesive are all of the same chemical nature.
3. The moldable composite material according to claim 1, wherein the low  
melt temperature fibers and the high melt temperature fibers of the nonwoven  
25 batting material, the cushion fibers of the nonwoven cushion material, the face  
textile, and the adhesive are all formed of the same material selected from the  
group consisting of: polyolefin and polyester.

4. The moldable composite material according to claim 1, wherein the low melt temperature fibers comprise between about 50% to about 85% of the total weight of said batting layer of nonwoven batting material.
- 5 5. The moldable composite material according to claim 1, wherein the low melt temperature fibers comprise about 70% of the total weight of said batting layer of nonwoven batting material.
6. The moldable composite material according to claim 1, wherein the  
10 heigh melt temperature fibers comprise between about 15% to about 50% of the total weight of said batting layer of nonwoven batting material.
7. The moldable composite material according to claim 1, wherein the  
15 high melt temperature fibers comprise about 30% of the total weight of said batting layer of nonwoven batting material.
8. The moldable composite material according to claim 1, wherein the batting layer is from about 4 mm thick to about 30 mm thick.
- 20 9. The moldable composite material according to claim 1, wherein the cushion layer is from about 0.5 mm thick to about 3 mm thick.
10. The moldable composite material according to claim 1, wherein the  
25 cushion fibers of said cushion layer comprises holofil fibers.
11. The moldable composite material according to claim 1, wherein said nonwoven batting material is cross direction laid and said nonwoven cushion material is machine direction laid.

12. A method of forming a composite material, comprising the steps of:  
blending low melt temperature fibers with high melt temperature fibers;  
forming a batting layer web from the combined low melt temperature  
fibers and high melt temperature fibers;  
5 depositing a cushion layer web of cushion fibers on the batting layer  
web;  
needling the combination of the batting layer web and the cushion layer  
web;  
applying a face textile on the cushion layer web with an adhesive  
10 therebetween;  
heating the combination of the batting layer web, the cushion layer  
web, the adhesive, and the face textile to a temperature to  
accomplish thermal bonding.
- 15 13. The method according to claim 12, further including the step of pre-  
selecting the high melt temperature fibers, the low melt temperature fibers, the  
cushion fibers, the adhesive, and the face textile such that all are formed of  
material from the same chemical nature.
- 20 14. The method according to claim 12, wherein the step of blending  
includes proportioning the blend to have between about 50% and about 85%  
of the low melt temperature fibers per total weight of the combined blend of  
the low melt temperature fibers and the high melt temperature fibers.
- 25 15. The method according to claim 12, wherein the step of blending  
includes proportioning the combined blend to have about 70% of the low melt  
temperature fibers per total weight of the combined blend of the low melt  
temperature fibers and the high melt temperature fibers.

16. The method according to claim 12, wherein the step of blending includes proportioning the blend to have between about 15% and about 50% of the high melt temperature fibers per total weight of the combined blend of low melt temperature fibers and high melt temperature fibers.
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17. The method according to claim 12, wherein the step of blending includes proportioning the combined blend to have about 30% of the high melt temperature fibers per total weight of the combined blend of the low melt temperature fibers and the high melt temperature fibers.
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18. The method according to claim 12, wherein the step of forming the batting layer web includes forming batting layer web with the low melt temperature fibers, and the high melt temperature fibers laid in the cross direction.
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19. The method according to claim 18, wherein the step of forming the cushion layer web includes forming cushion layer web with the cushion fibers laid in the machine direction.
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20. The method according to claim 12, wherein the step of forming the cushion layer web includes forming cushion layer web with the cushion fibers laid in the machine direction.
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21. The method according to claim 12, wherein the step of depositing the cushion layer web includes laying the cushion fibers directly on the batting layer web.
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22. The method according to claim 12, wherein the step of depositing the cushion layer web includes preforming the cushion layer web and applying the preformed cushion layer web onto the batting layer web.

23. The method according to claim 12, further including the step of rolling the thermally bonded combination of the batting layer web, the cushion layer web, the adhesive, and the face textile into a roll.

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24. A method according to claim 23, further comprising the steps of cutting a segment of the composite material from the roll, heating the segment of composite material to a molding temperature, and molding the sheet of composite material into a component part.

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25. The method according to claim 12, further including the step of cutting the thermally bonded combination of the batting layer web, the cushion layer web, the adhesive, and the face textile into at least one sheet.

15 26. A method according to claim 25, further comprising the steps of heating the sheet of composite material to a molding temperature, and molding the sheet of composite material into a component part.